

### **REMARKS**

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow. Claim 1 has been amended, no claims have been cancelled, and no claims have been added. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier. Thus, claims 1, 2, 4-7, 10-12, 15-19, and 37-39 remain pending in the application.

### **Claim Rejection - 35 U.S.C. §112**

Claims 1-2, 4-7, 10-12, 15-19 and 37-39 were rejected under 35 USC 112, first and second paragraphs. The claims were rejected under the written description requirement for failure to show that applicant had possession of the claimed invention at the time of filing. Specifically, the claims were rejected for failure to disclose representative examples of a peptide identified from a phage library that binds to a target geometrical shape. The claims were rejected under the enablement requirement for failure to enable one skilled in the art to make or use the claimed invention. Specifically, the claims were rejected to failure to provide adequate direction and guidance on how to determine the surface having a targeted geometrical shape. Essentially, the claims have been rejected for being “too broad.”

Regarding the section 112, second paragraph rejections, claims 1 and 39 were rejected for lack of antecedent basis for the use of the phrase “desire elements” in steps (e) and (f). Additionally, claim 1 was rejected for use of the word “specific,” while claim 38 was rejected for use of the phrase “a portion of.”

In response Applicants have amended claim 1 to replace “specific geometrical patterns” with “a flat surface” and “library of phage” with “known phage library.” Additionally, Applicants have amended claim 1 to replace steps (e) and (f) with the steps of “isolating and sequencing individual clones after performing step (d)” and “identifying a DNA sequence encoding a peptide

that demonstrates specific binding to the flat surface.” Support for these amendments can be found in paragraphs [0012], [0017], [0030], and [0035] of the specification. Claim 1 no longer recites “desired elements” or “specific geometrical patterns,” while claim 38 no longer recites “a portion of.” Therefore, the rejections under section 112, second paragraph are moot. Applicant respectfully requests withdrawal of these rejections.

Regarding the section 112, first paragraph rejections, Applicants note that claims have been amended to focus on flat surfaces rather than the more general “geometrical patterns.” Further, the claims have been amended to clarify that the phage libraries are known. Applicants submit that one of ordinary skill in the art given the specification and its citations to literature on flat surfaces and known phage libraries would be able to make and/or use the presently claimed invention. Further, there should be no doubt that Applicants were in full possession of the presently claimed invention.

#### **Claim Rejection - 35 U.S.C. §102**

Claims 1, 2, 4-7, 10, 16, 18, and 19 were rejected as anticipated by Naik et al. Claims 1, 4-7, 10-12, 15, 18, and 19 were rejected as anticipated by Belcher et al.

In response Applicants have amended independent claim 1 to include the limitations “synthesizing the identified peptide” and “confirming the identified peptide’s binding specificity.” Support for these amendments can be found in paragraph [0036] of the specification. “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegall Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Neither Nail et al. nor Belcher et al. disclose these two features. Therefore, neither Nail et al. nor Belcher et al. anticipate claim 1 or any of the claims that depend from claim 1.

